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CONTENTS

A Humming Bird's Favorite Nesting Place	By F. N. Shankland	33
A Second Bird Survey	By Harry C. Oberholser	34-47
Some Florida Herons	By John Williams	48-55
Birds Observed Near Minco	By Alexander Wetmore	56-61
Nebraska Ornithologists		62-64

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TWO NESTS OF BLACK-CHINNED HUMMINGBIRD

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A HUMMING BIRD'S FAVORITE NESTING PLACE.

F. N. SHANKLAND, WILLOUGHBY, OHIO.

It is a fact well known to all students of birds that many species of hawks, eagles, owls, swallows, wrens and other birds, return to the same nesting place year after year. It is doubtful, however, whether this has ever been found to be true of humming birds. In two cases that have come to my attention, however, humming birds of two different species have returned to the same nesting haunt on successive summers.

The accompanying photo shows two nests of the Black-chinned Hummingbird of California. The upper nest was built one year later than the lower one and contained two eggs at the time it was found. The birds had been seen in the locality the previous summer, but the nest had not been located. A year later, however, their secret was discovered and the nest and eggs collected. There is little doubt but that both nests were made by the same pair of birds. Evidently they liked the nesting place so well that they returned to it the second year. Nor is it improbable that if the nest had been left undisturbed the proprietors might have added a third nest the following year, and even more after that.

The nests shown in the photo were found by J. B. Dixon in Escondido, San Diego County, California, on June 12, 1904. They were located thirty feet high in a live oak tree.

The nests were made of sycamore down without lining. One of the eggs is somewhat larger than the other, which is often the case with sets of humming birds' eggs, and is usually explained on the theory that the smaller egg will hatch into a male bird and the larger one into a female.

Sometime ago I had the good fortune to find a nest of the Ruby-throated Hummingbird on an apple tree branch near my home at Willoughby. The nest contained two fresh eggs. While looking around I noticed a second nest a few feet away, and upon examining it found that it was a last year's one. Both nests had probably been made by the same pair of birds, for aside from the discoloration and weathering of the old nest, the two were identical in size, shape and general appearance. This, coupled with the fact that they were located within a few feet of each other, makes it almost certain that they were built by the same pair of birds.

These are interesting examples of the wonderful instinct which guides even the tiniest of birds over thousands of miles of territory to their favorite summer nesting haunts. In the case of the Black-chinned Hummingbird, however, it is quite possible that the builders of the double nest, owing to the mild climate of Southern California, had never strayed very far away from the place it was found.

A SECOND BIRD SURVEY AT WASHINGTON, D. C.

BY HARRY C. OBERHOLSER.

Our first comprehensive bird census[1] near Washington, D. C., was such a success that we decided to repeat it in the spring of 1917. On this second occasion twenty-two ornithologists took part, and the seventeen parties into which they separated covered pretty thoroughly the various kinds of country within twenty miles of the city. The date selected was May 11, 1917, one day earlier in the month than in 1913; and the choice proved to be a fortunate one, since an unex-

[1] The Wilson Bulletin, XXIX (No. 98), March, 1917, pp. 18-29.

pected and extraordinary combination of circumstances made this time exceptionally favorable for birds.

Weather conditions on this day were almost ideal. The air was clear, with 90 per cent of possible sunshine; a relative humidity of 62 at 8 a. m., and of 31 at 8 p. m.; a barometer ranging from 29.85 at 8 a. m. to 29.69 at 8 p. m.; and with a light south breeze in the morning, changing to a rather strong northwest wind in the evening. The temperature also was favorable, being moderately cool and equable, ranging from a minimum of 42° at 5 a. m. to a maximum of 68° at 4 p. m. Thermometer readings at other hours of the day were as follows: 4 a. m., 44°; 7 a. m., 46°; noon, 64°; 2 p. m., 66°; 6 p. m., 65°; 9 p. m., 57°.

The results of this all-day trip were as remarkable as they were unexpected, for on the previous day the prospects were far from bright. The total number of species observed by all the parties collectively was 166, which is, so far as we are aware, the largest number ever reported in a single day at any locality in the United States, even by the combined efforts of several observers. The total number of individual birds noted was 17074. The reasons for this rather astonishing result are not far to seek. The very cool weather of April and early May induced the winter residents to remain late, and at the same time greatly retarded the northward movement of the later migrants; a condition which, to judge by the reports of heavy spring migration from many other locilities, obtained over much of the northern and middle portion of the eastern United States. An examination of the appended table will show that, while a large number of species was present, there were only a few individuals of many of the later migrants on this May 11, on which date the spring migration about Washington is ordinarily at its height. In 1917, however, the high tide of the migration was not reached until May 17 to 23, nearly ten days later than usual. On the other hand, in 1917, some of the early migrants and winter residents were very numerous for so late in the season; as, for instance, the red-breasted nuthatch, blue-headed vireo, and

SPECIES	Wetmore	Aspinwall and Pellew	Shoemaker	Mabbott	Jackson	Palmer	Harper	Miner	Kalmbach and Gabrielson	Oberholser	Bartsch	Howell	Williams and Henderson	Cooke and Baird	Stimson	Holt	Mrs. Gabrielson	Totals
Phalacrocorax auritus auritus						2	1		1									4
Nycticorax nycticorax naevius	3				1		5			2					1			12
Butorides virescens virescens	1			2	1	1	5	1	3	6							1	21
Ardea herodias herodias							1		1									2
Ixobrychus exilis							6		3									9
Marila affinis						1	54	3	2									60
Marila marila										1								1
Anas platyrhyncha							4		1	2				3				10
Anas rubripes tristis	2						6			6								14
Querquedula discors										1								1
Aix sponsa																1		1
Lophodytes cucullatus							3											3
Cathartes aura septentrionalis	14	42	39	18	33	17	20	12	46	43	1	23	12	17	24	15	2	378
Tinnunculus columbarius columbarius										1								1
Cerchneis sparveria sparveria	1			1								2						4
Pandion haliaetus carolinensis			2	1		1			4	2		1						11
Haliaeetus leucocephalus leucocephalus							1	1										2
Buteo lineatus lineatus	1					1		1	1	2	1		3				1	11
Buteo platypterus platypterus	2		1					1		3		1		2				10
Accipiter cooperii	1					1			1				1					4
Accipiter velox									1					3		1		5
Circus cyaneus hudsonius													1					1
Bonasa umbellus umbellus			1															1
Colinus virginianus virginianus	8	3	6	2	3	4	24	10	18	12	2	4	7	15	10	8	3	139

Rallus elegans						1													1
Glottis melanoleuca							16			10									26
Iliornis flavipes						7			2	145									154
Tringa solitaria solitaria	1				2	1	3	1	4			4	5			2			23
Bartramia longicauda								1											1
Actitis macularia	10	3	35	11	26	26	35	15	40	63		8	4	3	3	11			293
Pelidna alpina pacifica										30									30
Ereunetes pusillus						7			1	24									32
Pisobia fuscicollis						3			1										4
Pisobia minutilla minutilla									1	5									6
Philohela minor										1									1
Gallinago delicata									3										3
Oxyechus vociferus vociferus		1	3		1	1	3	1	5	3		1			1	4			24
Larus argentatus									1										1
Larus delawarensis									10										10
Larus atricilla megalopterus						2		6											8
Larus philadelphia							4	4	160		30								198
Chlidonias nigra surinamensis						6	4		1										11
Hydroprogne caspia imperator							4		4										8
Sterna hirundo						2													2
Zenaidura macroura carolinensis	11	9	10	7	2	2	8	11	16	10		27	7	5		21	4		150
Coccyzus americanus americanus	1																		1
Coccyzus erythropthalmus							1	1		1		1							4
Colaptes auratus luteus	6	13	7	8	7	10	7	14	8	14	4	7	14	9	6	14	1		149
Centurus carolinus	1			1	1			2								2			7
Melanerpes erythrocephalus	1	2		1	1	2	4	2	3	11		9	2	3	3	5	1		50
Dryobates pubescens medianus	2			5	1	2	4	8	2	1	2	1	5	4	1	3			41
Dryobates villosus villosus		1					5	2		1		2			1	2			14
Sphyrapicus varius varius								1											1
Streptoceryle alcyon alcyon	1	2		3	2	3	3	5	5	7		3	3	2		2			41
Strix varia varia						1				1									2
Otus asio naevius					1				1										2
Setochalcis vocifera vocifera		1															1		2
Chordeiles minor minor	2		2			1	1	1	1	3						1			10
Archilochus colubris				1		1		1	2										5
Chaetura pelagica	90	350	26	160	59	202	66	100	70	81		40	16	80	3	130	21		1475

Horizopus virens				1	3	1		1		1		1							8
Empidonax virescens		1			2									3					6
Empidonax traillii traillii														2					2
Empidonax minimus	1			1	2		1		1	1			1	1					9
Sayornis phoebe	3	9	7	9	12	1	4	12	1	1		7	8	13	7	5			99
Myiarchus crinitus crinitus	6	7	5	4	2	3	4	4	5	8	1	6	8	7	2	4	1		77
Tyrannus tyrannus tyrannus	3	5	7	2	1	1	4	18	6	2	1	4	1	9	7	6	2		79
Sturnus vulgaris	1			1					3										5
Toxostoma rufum rufum	3	10	7	1	4	11	3	12	6	6	1	18	9	2	8	4	4		109
Mimus polyglottos polyglottos		10	1	2	3	1	2	16	4	24		3			3	2			71
Lucar carolinensis	5	36	1	42	96	38	37		54	35		15	40	14	23	29	6		471
Sialia sialis sialis	2	18	12	2	6	2	6	14	9	5		6	2	3	3	6	1		97
Planesticus migratorius achrusterus	10	68	11	10	18	8	26	11	33	47		50	50	30	34	46	2		454
Hylocichla fuscescens fuscescens	3	8		2	1			3	1	1		1	2	1		1			25
Hylocichla guttata pallasii							2					1				1			3
Hylocichla aliciae aliciae		4								2				1					7
Hylocichla ustulata swainsoni	3				3					2		1		1					10
Hylocichla mustelina	6	21	6	20	10	6	5	1	8	51		23	30	10	2	6			205
Polioptila caerulea caerulea	3	6	2	5	1		3	2	8	9				1		2			42
Regulus calendula calendula	1		2				1		2				1		3		2		12
Troglodytes aedon aedon	4	30	8	5	20	24	15	25	32	10		15	13	10	11	17	1		240
Thryothorus ludovicianus ludovicianus	10	11	3	38	9	7	8	4	20	4		5	4	17	6	6	2		154
Telmatodytes palustris palustris							7		5	22									34
Sitta canadensis	4	1	1	1			1	1						1			2		12
Sitta carolinensis cookei			1		1			4	1	2		1	4	1	1		1		17
Penthestes carolinensis carolinensis	2	5	4		4	1	2	5	4	7		1	5	5	2	5	2		54
Baeolophus bicolor	5	14	4	11	9	1	2	23	3	15		10	7	9	3	8	2		126
Cyanocitta cristata cristata	20	23	23	7	14	15	7	35	11	61		25	17	73	3	31	14		379
Corvus ossifragus	2	13		1	5	8	15	50	19	34	7	5		7					166
Corvus brachyrhynchos paulus	9	38	16	14	22	25	26	11	38	52	2	29	8	26	6	21	4		347
Lanius ludovicianus migrans		1						1		1	2	2							7
Vireo griseus griseus	4	8		8	4	12	13	15	24	12	1	5	5		4	5			120
Lanivireo solitarius solitarius	2	2	2	1				4		2		1		5	1				20
Lanivireo flavifrons	1	5	7	12	2	1	2		6	6		4	1	1	2	5			55
Vireosylva gilva gilva					1				1										2
Vireosylva olivacea	2	10	6	14	27		2	6	1	1		2	2	1	1	1			76

Bombycilla cedrorum														1		6		7
Iridoprocne bicolor	12		6		2	5	20	12	18	24	40				2	10		151
Hirundo rustica erythrogastris	9	6	6	6	2	4	17	50	12	50	20	14			9	36		241
Riparia riparia riparia	2					114	6		2	3	100							227
Stelgidopteryx serripennis serripennis	8	24	16	10	193	120		20	5	40	3	1		22		2		464
Petrochelidon albifrons albifrons	1			2	2		1	5			20							31
Progne subis subis	21	2		2			3	15	8	18								69
Setophaga ruticilla	6	33	17	53	84	12	22	35	37	22		5	3	16	13	10	1	369
Wilsonia canadensis		3	1	1			1							2				8
Wilsonia pusilla pusilla		1				1			1									3
Wilsonia citrina	6	6	9		1	1	1	2		2		4	1	2				35
Icteria virens virens	5	8	2	10	6	1	11	5	23	1		4	5	3	4	2		90
Geothlypis trichas trichas	6	25	9	20	13	19	30	35	36	25		20	12	6	10	14	4	284
Geothlypis trichas brachidactyla														1				1
Seiurus noveboracensis noveboracensis		1	1	7	1	1	2			2		3	8			5		31
Seiurus motacilla	4	1	5	2	11	1	1		1				2	9	3			40
Seiurus aurocapillus	3	34	11	12	13	3	9	14	13	41		22	30	31	5	4	1	246
Oporornis philadelphia					3													3
Oporornis formosus	2	2		2				1						3				10
Dendroica palmarum hypochrysea									1									1
Dendroica discolor	13	8	8	3	2	1	4	3		2		2	3	1				50
Dendroica vigorsii vigorsii	1	1			1							1						4
Dendroica striata								5										5
Dendroica pensylvanica	8	6	1	4		2	5	12	5	6		8	4	27	3	3	1	95
Dendroica fusca				1	3					1				3		1		9
Dendroica virens	15	25	30	6	1	5	4	8	12	16		1	15	13	5	4		160
Dendroica coronata coronata	57	14	10	14	3	4	9	32		16	1	19	75	28	11	15	8	316
Dendroica caerulescens caerulescens	1	11	3	9	5	1		12	3	2		1	2	7	1		1	59
Dendroica tigrina					1		1			2								4
Dendroica magnolia	1	2			2	1	1			1		1	3	2	1		1	16
Dendroica aestiva aestiva	3	8	2	6	6	6	14	10	30	19		2	2	3	3	8		122
Compsothlypis americana americana	4	21	21	20	8	2	3	8		8		1	4	7	2			109
Vermivora ruficapilla ruficapilla					1					14						1		16
Vermivora peregrina								1		2								3
Vermivora pinus		1							2	1								4
Vermivora chrysoptera		1			1	1								2		1		6
Protonotaria citrea																	1	1

Helmitherus vermivorus		3	12		4	1	1		1	1								22
Mniotilta varia	5	13	11	13	4	1	5	22	2	12		10	12	22	6	8		146
Dolichonyx oryzivorus			9				35	50	41	18		10				23		86
Sturnella magna magna	5	44	20	8	2	1	24	25	20	8	1	16	1	11	8	15	1	210
Agelaius phoeniceus predatorius			1		3	1	8	1	26	104	1	4			3	16		168
Icterus galbula	3	19		5	2		2			3	1		5	2	3	1		46
Icterus spurius	1	14	2			3		6		4		2			1			33
Euphagus carolinus															5	20		25
Quiscalus quiscula quiscula	4	41	3	21	8	5	47	150	57	56	1	43	16	29	21	25	3	531
Molothrus ater ater						7		1		1					1			10
Piranga erythromelas	4	8	1		2		1	4	5		1	2	3	1	1	1	3	37
Piranga rubra rubra							1					2						3
Cardinalis cardinalis cardinalis	18	28	10	17	15	13	14	18	42	27	4	18	25	8	9	11	5	282
Hedymeles ludovicianus		1	1		1			2	2	1								8
Guiraca caerulea caerulea					1													1
Linaria cyanea	2	14	1	16	2	2	1	21	2	1		1	2	1	1	5		72
Pipilo erythrophthalmus erythrophthalmus	13	18	13	6	17	16	15	25	27	37	1	16	30	11	8	15	10	278
Passerella iliaca iliaca		1																1
Melospiza georgiana	6	2	1	1	2		16	1	12			2				3		46
Melospiza melodia melodia	4	13	6	18	126	79	39	75	46	80	12	32	20	8	10	16	2	586
Zonotrichia albicollis	109	148	57	52	63	58	64	100	57	81	6	44	300	74	14	27	21	1275
Zonotrichia leucophrys		1					5		1	1		1		2	2	1		14
Spizella pusilla pusilla	4	27	15	4	2	18	17	31	20	4		14	2	3	2	3	2	168
Spizella passerina passerina	10	101	48	5	6	20	6	50	33	39		36	6	44	5	25	3	437
Spizella monticola monticola															1			1
Nemospiza henslowii henslowii							3											3
Ammodramus savannarum australis		2	7				15	12	4						1			41
Passerculus sandwichensis savanna																1		1
Pooecetes gramineus gramineus			3							2						1		6
Passer domesticus hostilis	25	116	27	30	453	101	106	15	69	52		14		45	26	70		1149
Carpodacus purpureus purpureus	17	38	25	21		1	14	50		44	30	1	25	12	10	57		345
Astragalinus tristis tristis	11	15	35	37	16	26	89	100	53	30	41	19	23	14	6	36	5	556
Spinus pinus pinus	2						1											3
Total number of species	85	84	73	74	85	83	97	89	98	105	30	79	63	76	67	74	43	166
Total number of individuals	702	1705	734	879	1517	1131	1189	1526	1458	1840	338	771	937	876	401	934	136	17074

purple finch. Furthermore, the occurrence of an exceptional number of rare and of occasional visitors at the time our census was taken aided materially in swelling the total of species observed. This peculiar combination of circumstances, which made possible such a great record, is not likely to recur in many years.

On this day the seven most numerous species, in the order of their abundance, were: chimney swift, white-throated sparrow, English sparrow, song sparrow, American goldfinch, purple grackle, and catbird. It is interesting to note that four of these are sparrows.

The nineteen species least numerous, of which only a single individual was observed, were: greater scaup duck, blue-winged teal, wood duck, pigeon hawk, marsh hawk, ruffed grouse, king rail, upland plover, woodcock, herring gull, yellow-billed cuckoo, yellow-bellied sapsucker, northern yellow-throat, yellow palm warbler, prothonotary warbler, blue grosbeak, fox sparrow, tree sparrow, and Savannah sparrow.

The fourteen species of most general distribution, reported by all the parties in the field, were: turkey vulture, bob-white, flicker, crested flycatcher, kingbird, brown thrasher, southern crow, meadowlark, purple grackle, cardinal, chewink, song sparrow, white-throated sparrow, and American goldfinch.

Thirteen others were observed by every party except one: chimney swift, bluebird, southern robin, house wren, Carolina wren, tufted titmouse, blue jay, American redstart, Maryland yellow-throat, oven-bird, myrtle warbler, field sparrow, and chipping sparrow.

Several birds were much more than ordinarily numerous for this locality, among which we might mention the white-crowned sparrow, bob-white, mockingbird, Carolina wren, blue jay, and American redstart.

Among the rarer birds of the District of Columbia, found on May 11, the following seem worthy of special mention: the double-crested cormorant, of which there are only a few other records; the woodcock, which has become rare of late years; the pigeon hawk, which is not often seen; the ruffed

grouse, which has become almost extinct in the immediate vicinity of Washington; the king rail, which is here of very local distribution; the upland plover, which has been very rare of recent years, but is now apparently on the increase; the red-backed sandpiper, which is very irregular here; the white-rumped sandpiper, which has but two other records; the laughing gull, with only a few previous occurrences, and none of these in the spring; the black tern, previously noted only once in spring; the Caspian tern, otherwise but twice recorded; the common tern, with also but two definite previous records; the mourning warbler, which has been very infrequent of late years; the blue-winged warbler, which is also rare; the prothonotary warbler, of which there are but seven previous records; and the blue grosbeak, which is so uncommon that its presence is always noteworthy.

So unusual a spring season might reasonably be expected to furnish a number of very late records for migrants and winter residents; and in the following list are included those of which the late spring records were broken by our observations on May 11; their latest previous known occurrence at this season in this locality being represented by the date after each:

Mallard, March 19, 1905.
Black duck, April 21, 1915.
Hooded merganser, April 8, 1906.
Pigeon hawk, April 25, 1912.
Upland plover, April 24, 1890.
Red-backed sandpiper, April 24, ——.
White-rumped sandpiper, no previous spring record.
Herring gull, May 10, 1887.
Ring-billed gull, April 28, 1887.
Laughing gull, no previous spring record.
Caspian tern, no previous spring record.
Common tern, May 7, 1894.
Rusty grackle, April 30, 1875.
Tree sparrow, May 7, 1889.

Comparison of the present census with that of 1913 brings out some interesting points. While the weather on the two

census days was very similar, the temperature on the immediately preceding days was widely different in the two years, being very high in 1913, and very low in 1917; so that in 1913 the winter residents had practically all disappeared, and the number of purely migratory species present was also very much less than in 1917. Thus, 1913 was an exceptionally poor year for birds, in fact, considerably below normal; and 1917 was fully as much above the ordinary. The difference between 129 species observed in 1913, and 166 in 1917 well illustrates this; and the normal condition would probably be about half-way between the two. Six species, however,—the pied-billed grebe, great horned owl, bay-breasted warbler, yellow-throated warbler, northern parula warbler and Bachman sparrow—seen in 1913 were not noted in 1917. Of the six most numerous species, in point of individuals observed, only three—the English sparrow, song sparrow, and chimney swift—were identical in the two years, and their relative abundance was not the same. The abundance of the barn swallow and tree swallow in 1913 was due to a large single flock of swallows seen on the Anacostia River; but no such flock was present on the day of our observations in 1917. Moreover, the list of birds least numerous was very different in 1917, as only five out of nineteen are common to both lists. These are the marsh hawk, king rail, woodcock, yellow palm warbler, and blue grosbeak. The species of most general distribution, however, show a much closer agreement, since eight out of fourteen of the 1917 birds in this category are the same as those in the 1913 list.

The itinerary of each of the seventeen parties engaged in this survey was as follows:

1.—Great Falls, Virginia. Traveled by electric car from Woodridge, D. C., to Fairview, Virginia, and return, 43 miles; on foot, 18 miles, from Fairview, Virginia, to above Great Falls on the Virginia side of the Potomac River. Character of country traversed: woodland and thickets, 80 per cent; clearings and farm land, 17 per cent; swamp, 3 per cent. Total distance traveled, 61 miles. Time in field, 5:00 a. m. to

9:25 p. m. Total number of species observed, 85; individuals, 702. Alexander Wetmore.

2.—Washington, D. C., to Great Falls, Maryland. Traveled by automobile to Great Falls and return, 40 miles; on foot, 10 miles, about Great Falls, on the Maryland side. Character of country traversed: woodland and thickets, 80 per cent; fields, 20 per cent. Total distance traveled, 50 miles. Time in field, 6:00 a. m. to 5:30 p. m. Total number of species observed, 84; individuals, 1705. Mrs. Clarence A. Aspinwall and Miss Marion Pellew.

3.—Valley of the Potomac River in Virginia, from Difficult Run to Dead Run, and west to McLean, Virginia. Traveled by electric car from Washington, D. C., to Bellevue, Virginia, and from McLean, Virginia, to Washington, D. C., 18 miles; on foot, 8 miles, from Difficult Run along the Potomac to Dead Run, and thence across country to McLean, Virginia. Character of country traversed: woodland and thickets, mostly along streams, 65 per cent; open fields and country roads, 35 per cent. Total distance traveled, 26 miles. Time in field, 6:30 a. m. to 6:00 p. m. Total number of species observed, 73; individuals, 734. Clarence R. Shoemaker.

4.—Valley of the Potomac River in Maryland, from Chain Bridge. D. C., to one mile above Great Falls, Maryland. Traveled by electric car from Woodridge, D. C., to Chain Bridge, D. C., and from Great Falls, Maryland, to Woodridge, D. C., 30 miles; on foot, 14 miles, along the Chesapeake and Ohio Canal from Chain Bridge to one mile above Great Falls, Maryland, with detours to the Potomac River, to Plummer's Island, and elsewhere. Character of country traversed; canal and towpath, 60 per cent; woodland and thickets, 40 per cent. Total distance traveled, 44 miles. Time in field, 5:10 a. m. to 6:45 p. m. Total number of species observed, 74; individuals, 879. Douglas C. Mabbott.

5.—Potomac Valley on the Virginia side from Georgetown, D. C., to Chain Bridge, Virginia; and on the Maryland side from Chain Bridge, D. C., to Cabin John Bridge, Maryland. Traveled by electric car from Washington, D. C., to George-

town, D. C., and from Cabin John Bridge, Maryland, to Washington, D. C., 14 miles; on foot, 17 miles, from Georgetown, D. C., along the Virginia side of the Potomac to Chain Bridge, Virginia; and on the opposite side of the Potomac from Chain Bridge, D. C., to Cabin John Bridge, Maryland. Character of country traversed: dry woodland, 30 per cent; wet woodland, 20 per cent; forest borders, 36 per cent; fields and roads, 5 per cent; rocky ledges and brushland, 8 per cent; marshland, 1 per cent. Total distance traveled, 31 miles. Time in field, 3:50 a. m. to 3:00 p. m. Total number of species observed, 85; individuals, 1517. H. H. T. Jackson.

6.—Rosslyn, Virginia, to Arlington and Four-mile Run, Virginia. Traveled by automobile from Georgetown, D. C., to Four-mile Run and return, 10 miles; on foot, 8 miles, from Rosslyn, Virginia, to Arlington Cemetery, Hume Station, Relee, and Four-mile Run, Virginia. Character of country traversed: riverside, marshes, and thickets, 40 per cent; woodland, 10 per cent; open fields and roads, 50 per cent. Total distance traveled, 18 miles. Time in field, 7:00 a. m. to 5:30 p. m. Total number of species observed, 83; individuals, 1131. William Palmer.

7.—Woodridge, D. C., Washington, D. C., and New Alexandria to Dyke and Falls Church, Virginia. Traveled by electric car from Woodridge, D. C., to New Alexandria, Virginia, and from Falls Church, Virginia, to Woodridge, D. C., 27 miles; on foot, 25 miles, about Woodridge; in the Mall of the city of Washington; from New Alexandria, Virginia, to Dyke, Virginia, and thence across country to Falls Church, Virginia, by way of Cameron Run and Holmes Run. Character of country traversed: woodland, 50 per cent; fields, 35 per cent; marsh, 10 per cent; river, 5 per cent. Total distance traveled, 52 miles. Time in field, 4:05 a. m. to 9:35 p. m. Total number of species observed, 97; individuals, 1189. Francis Harper.

8.—Wellington, Virginia, to Dyke and Oaks, Virginia. Traveled by electric car from Wellington, Virginia, to Washington, D. C., 13 miles; on foot, 9½ miles, from Wellington,

Virginia, to the Fort Hunt Road; to Arcturus; along the river to Dyke and Oaks; and thence along the uplands back to Wellington, Virginia. Character of country traversed: woodland, 20 per cent; marsh, 10 per cent; farmyards, 1 per cent; orchards, 2 per cent; fields, 67 per cent. Total distance traveled, 22½ miles. Time in field, 5:00 a. m. to 5:00 p. m. Total number of species observed, 89; individuals, 1526. Mr. and Mrs. Leo D. Miner.

9.—Valley of the Potomac and Anacostia Rivers, from opposite Alexandria, Virginia, to Benning, D. C., and College Park, Maryland. Traveled by electric car from Congress Heights, D. C., to Anacostia, D. C., and from Riverdale, Maryland, to Woodridge, D. C., 4 miles; on foot, 18 miles, in the vicinity of the Potomac River from opposite Alexandria to Congress Heights; along the Anacostia River from Anacostia to Woodridge, D. C.; across country to College Park, Maryland; and thence to Riverdale, Maryland. Character of country traversed: woodland, 40 per cent; meadows, 4 per cent; roadways, 22 per cent; wooded swamps, 17 per cent; mud flats, 11 per cent; river shore, 3 per cent; and marshes, 3 per cent. Total distance traveled, 22 miles. Time in field, 4:00 a. m. to 7:00 p. m. Total number of species observed, 98; individuals, 1458. E. R. Kalmbach and I. N. Gabrielson.

10.—Rock Creek Park, D. C., Piney Branch, D. C., and the Anacostia River Valley from Benning, D. C., to Bladensburg, Maryland. Traveled by electric car from Rock Creek Park to Benning, D. C., and return, 12 miles; on foot, 1 miles, in Rock Creek Park, along Piney Branch, and in the Anacostia Valley; by rowboat, 12 miles, from Benning, D. C., to Bladensburg, Maryland, and return. Character of country traversed: woodland and thickets, 42 per cent; fields and roads, 16 per cent; marsh, 21 per cent; and river, 21 per cent. Total distance traveled, 31 miles. Time in field, 4:00 a. m. to 9:00 p. m. Total number of species observed, 105; individuals, 1840. Harry C. Oberholser.

11.—Oxon Run, D. C., and Potomac Park, Washington,

D. C. Traveled by automobile, Washington, D. C., to Oxon Run, D. C., and return; and to Potomac Park and return, 18 miles. Character of country traversed: woodland and thickets, 60 per cent; meadows, fields, and park, 40 per cent. Total distance traveled, 18 miles. Time in field, 6:30 a. m. to 8:30 a. m.; and 5:00 p. m. to 6:00 p. m. Total number of species observed, 30; individuals, 338. Paul Bartsch.

12.—Woodridge, D. C., to Forest Glen, Maryland. Traveled by electric car from Forest Glen, Maryland, to Woodridge, D. C., 13 miles; on foot, 15 miles, from Woodridge, D. C., to Mount Rainier, Maryland; thence up the valley of Northwest Branch to near Burnt Mills, Maryland; and across country to Forest Glen, Maryland. Character of country traversed: rolling cultivated fields, 40 per cent; woodland, 60 per cent. Total distance traversed, 28 miles. Time in field, 5:00 a. m. to 6:15 p. m. Total number of species observed, 79; individuals, 771. Arthur H. Howell.

13.—Sligo Creek, Maryland. Traveled on foot, 12 miles, from Takoma Park, Maryland, to Sligo Creek, and along the creek for a considerable part of its course. Character of country traversed: woodland and thickets, 100 per cent. Total distance traveled, 12 miles. Time in field, 4:40 a. m. to 3:45 p. m. Total number of species observed, 63; individuals, 937. R. W. Williams and W. C. Henderson.

14.—Rock Creek Park, D. C., and Zoölogical Park, D. C. Traveled by electric car from Washington, D. C., north to the District Line, 3 miles; on foot, 10 miles, through Rock Creek Park and the Zoölogical Park, chiefly in the Rock Creek Valley. Character of country traversed: woodland, 90 per cent; open fields, 10 per cent. Total distance traveled, 13 miles. Time in field, 5:30 a. m. to 5:00 p. m. Total number of species observed, 76; individuals, 876. Miss M. T. Cooke and Miss K. B. Baird.

15.—Chevy Chase, Maryland, to Chevy Chase Lake, Maryland, Glen Echo, Maryland, and Chain Bridge, D. C. Traveled on foot, 12 miles, from Chevy Chase, Maryland, to Rock Creek, Maryland; thence to Chevy Chase Lake, Maryland,

and Brookeville Road, Maryland; also from Chevy Chase, Maryland, west to Glen Echo Junction, Maryland, on the Potomac River; thence south along the Conduit Road to Chain Bridge, D. C., and back to Chevy Chase, Maryland. Character of country traversed: woodland, 80 per cent; fields, 20 per cent. Total distance traveled, 12 miles. Time in field, 5:00 a. m. to 9:20 a. m.; and 12:50 p. m. to 5:40 p. m. Total number of species observed, 67; individuals, 401. A. M. Stimson.

16.—Patuxent River, from Laurel, Maryland, to Bowie, Maryland. Traveled by train from Langdon, D. C., to Laurel, Maryland, and from Bowie, Maryland, to Langdon, D. C., 29 miles; on foot, 15 miles, along the Patuxent River from Laurel to Bowie, Maryland. Character of country traversed: timbered river bottomland, 75 per cent; open fields and pastures, 25 per cent. Total distance traveled, 44 miles. Time in field, 5:00 a. m. to 7:00 p. m. Total number of species observed, 74; individuals, 934. E. G. Holt.

17.—East Falls Church, Virginia. Traveled on foot, 2 miles, about East Falls Church. Character of country traversed: woodland, 100 per cent. Total distance traveled, 2 miles. Time in field, 5:15 a. m. to 7:30 a. m. Total number of species observed, 43; individuals, 136. Mrs. I. N. Gabrielson.

The accompanying table gives in more graphic form the number of each species observed by each party; also the total number of each species observed by all the parties during the day, as well as the other totals given above.

SOME FLORIDA HERONS.

JOHN WILLIAMS, ST. MARKS, FLORIDA.

An account of breeding colonies of *Hydranassa tricolor ruficollis* (Louisiana Heron), and of *Florida cærulea* (Little Blue Heron) may contain little information to one familiar with the breeding habits of these two species, but they may be of interest to those who have not had an opportunity to

see into such an assembly. While neither the Louisiana Heron nor the Little Blue were strictly speaking "plume" birds, yet because of their habits of nesting in colonies of considerable numbers thereby offering easy prey to the murderous demands of fashion, their numbers were greatly reduced during the years when plumes and other feather ornamentations were in vogue.

I had been familiar with these two species all over the region about St. Marks, along the rivers, at ponds and pools inland or along shore, away out in the open piney woods in the season of continued rains when hundreds of these birds may be seen walking or rather wading through grassy plains now inundated, but it was not until the early summer of 1912 that I came upon a nesting colony of either.

On May 23 of that year I collected a female Louisiana Heron from which a fully developed egg was taken. The bird was shot along the coast some eight or ten miles west of our lighthouse and near what is known as Shell Point beach. No opportunity for a search for the colony occurred until June 26, but numerous birds of the species were seen in the immediate vicinity prior to May 23. On the later named date about twenty pairs of Louisiana Herons were found about one mile from Shell Point on a small island about three-quarters of a mile off shore. The nests were placed in the lower branches of a narrow fringe of bushes that bordered one side of the island and were about as one might expect of a bird of this family. They were constructed almost if not exclusively of the common round salt marsh rush and were extremely frail. Several broken egg shells were found on the ground, some of which had doubtless been rolled out by force of wind or the careless handling of the old birds, as the nests were noticeably flat and afforded but slight security to the contents. At this date most of the nests contained eggs, mainly three in number, a few held two each, one contained six eggs, while one held two young birds seemingly about one week old, and another had three young, two of which were of about the same age

as those in the other nest, while the third youngster was but one-half the size of his companions. Fish Crows are plentiful and as a "Jackdaw" dearly loves his eggs in the shell, doubtless the small number of eggs in some nests might be readily accounted for. At this time it would have been fair to infer that the usual or normal clutch was three (3), but from later observations I would think four are more commonly laid as a full complement.

No other species of Heron was observed nesting with this colony or occurring in the immediate locality. I did not visit these birds again until June 6, 1915, when about forty pairs were found nesting in the same fringe of bushes in which the twenty pairs were located in 1912; while over one hundred pairs of the same species were found on an adjacent island nesting in a similar situation, except that the bushes were larger and in a more compact group.

At this date the contents of the nests were 1 to 4 eggs each; a few held very young birds. The existence of this colony in 1912 is not known. On May 7, 1917, this same locality was again visited and no birds were found nesting at either of the two sites noted, and as but two or three of the birds were to be seen drifting about in the vicinity it was surmised they had abandoned the neighborhood.

In preparing to leave the island in a row-boat, a landing was made across a small cove from the line of bushes that had formerly been used as nesting sites by these birds. On stepping ashore I was startled at seeing hundreds of Louisiana Herons spring up from the open, treeless marsh and immediately settle down again as I sank to cover. A few steps into the thick matted rushes and again the birds arose on hurried wingbeats almost directly upwards and drifted with much croaking farther down the island. A few steps more and I was in the midst of a nesting colony of these birds; every few yards a nest directly on the depressed rushes where a high tide had beaten down the tops of the tall rank growth. A hurried estimate of the number of these birds made approximately 500 individuals, but whether both

sexes were in the marsh I could not determine, and no accurate count of the nests was attempted, as they extended to a considerable distance in at least two directions—just how far was not discovered—and an enumeration under the conditions would have required more time than could be spared then, but enough was seen to convince me there were more than 150 nests, while there might have been two or three times that number. The nests contained from one to five eggs, but for the most part four, and as far as examined all were freshly laid. The nests were but little more than the scratching aside of the tangled rushes and a few broken pieces of the same laid crossing one another to aid in retaining the eggs from working down.

It would appear as if all the Louisiana Herons of the section had assembled in this nesting colony, as the two former sites were entirely abandoned and none other was found. The writer has never seen nor read of any of the Herons nesting in a similar situation, but it may not be as unusual as he supposes.

On taking my departure from the island the birds quickly commenced returning and seemingly all was again quiet before I had progressed many rods from shore. Why the birds left the bushes for such an open exposed location is a query; any extra high tide would have completely washed off the nests and it would seem that the contents of the nests, eggs or young, would be more exposed to Crows or "Jackdaws" on the open marsh than in the bushes. Possibly the available bushes would not have contained all of the nests of the greatly extended colony, but why were not the bushes also used to their capacity?

On June 3, 1916, I visited a nesting place of Little Blue Herons located four miles up the St. Marks river from our village and about a half-mile back from the river in a section of open piney woods known as Willis Bay, made up of a few scattered pines covering a tract of perhaps one and three-quarter miles by one mile and interspersed with numerous "Ty-Ty" ponds varying in size up to perhaps 150 yards in

diameter. In the ponds where the water was deepest and hence stood longest the central portions were open and free from bushes, while others were grown up solid with the "Ty-Ty," which I believe are a species of willow and grow extremely dense.

The Herons were occupying the bushes about one of these ponds and my notes of the trip relate that the pond was almost dry so far as surface water was to be seen.

The surrounding bushes extended perhaps 150 yards long by 60 to 75 yards wide and were 25 to 30 feet high down to not exceeding 10 or 15 feet at the east end. Fire had burned the outer border and the smaller bushes were difficult to penetrate on account of the close interlacing of the lower branches, and being killed by the fire were a formidable barrier to penetrate on a sultry day, with flies and mosquitoes swarming. Where the bushes were higher progress was easier by creeping under them.

Many young Herons were in the tops of the "Ty-Ty" and in the small pines at the outer edge of the clump. Younger birds were scattered over the bushes in the center where the nests were all located. Eight and ten nests were sometimes seen on a single bush. One nest held three eggs, several had single dead birds, other dead young were on the ground and two were seen hanging dead, caught as they had fallen, by the neck in slender forks of the branches. One young bird still unable to fly was walking about on the ground with a much smaller young one of the same species dangling from its mouth. The head of the small bird had been swallowed, bill foremost, and when uncoupled the skin of the head of the victim showed considerable progress toward digestion.

A single adult White Ibis was perched in the top of one of the bushes and eight or ten young Louisiana Herons were present. I estimated the number of Little Blue Herons at about 150, possibly not over 125, it being extremely difficult to get an accurate count of them as they traveled, sat or flew about. From 50 to 60 nests were seen and those still occupied contained from one to three young each. I had been

informed that many eggs had been taken from this colony early in the season to be eaten by workmen at a nearby saw-mill, which would account for the varied sizes of the young birds as the nesting birds usually lay repeatedly if the nests are broken up. A number of the oldest juveniles could fly a little, while many were just able to walk from the nest and a few were too small to travel at all. In walking over the bushes both the toes and bill were used in grasping the branches.

A few Vultures were in the vicinity and two Florida Grackles flew from the bushes. Four White-eyed Towhees were at the outer border of the "Ty-Ty" and a Pine-woods Sparrow sang near at hand. Only a little water remained in the open, central portion of this pond, but the mud and ooze under the bushes made progress uncomfortable.

But eight or ten adult Little Blue Herons were seen about the pond during a stay of over an hour. The young taken from the nest had stomachs full to distention, the contents being for the most part Fiddler crabs, that must have been carried three to five miles, together with some other aquatic animal matter. One had an entire dry leaf of myrtle with the Fiddlers. The young and adults uttered a few complaining gutteral notes, but on the whole they were not clamorous.

The nests for the most part were small and frail; one or two were rather bulky and compact. Some nests were not exceeding five feet from the ground, while others were twelve to fifteen feet up.

On April 1, 1917, I again visited the "Ty-Ty" pond in Willis Bay and found 100 or more pairs of Little Blue Herons present, with four or five pairs of Louisiana Herons, one Green Heron and 40 to 50 White Ibises.

The Little Blues had nests scattered on the bushes overhanging the water in the center of the clump, some bushes containing four or five nests each, and these held from one to six eggs each. A few nests were still under construction. I saw no nest supposed to be of the Ibises, Louisiana or Green Herons at this time. The water was now fully two

feet deep in places and wading was treacherous and uncertain over logs, snags and roots, and I knew of the presence of at least one alligator and of *some* snakes.

The Ibises and Little Blue Herons flew up together when first alarmed and circled in a vast swarm. I saw no immature Little Blue Herons.

On April 4, 1917, the "Ty-Ty" pond was again explored. Waded through most of the pond. About 150 occupied and finished nests were observed. These contained from one to six eggs each. But one with six eggs, four was the most common number, and five frequently. Several held but three each.

Probably eight to ten pairs of Louisiana Herons were present and one of these was seen to carry a stick. At Shell point this species did not have fresh eggs until the seventh of May. White Ibises were still abundant and stood around on the bushes as if permanently located. A few nests from which Heron's eggs were removed on April 1st now contained one and two eggs each. Probably the former clutch had been incomplete.

As many as eight nests were in a single clump of "Ty-Ty," which made a diameter of about fifteen feet. But few nests were more than eight feet up, and many not exceeding five feet above the surface of the water. The nests varied greatly in size and form. Some a mere loose bunch of sticks through which eggs could be seen from below; others were a thick mass a foot or more of solid material. The average nest was about sixteen to eighteen inches across and six to eight inches in depth, with a slight central depression. In one case an egg had rolled from the nest and lodged in sticks at the side of the nest. Several eggs were on the ground beneath the nests. No Crows were seen in the vicinity.

On April 14, 1917, another visit was made to the "Ty-Ty" pond. I then estimated there were 150 pairs of the Little Blue Heron at the pond and about ten pairs of Louisiana Herons. Two or three nests were noted containing young just hatching. The old birds were noisy and quar-

relsome among themselves. When routed up they quickly settled back on the bushes.

Two males were seen pecking and striking at each other with a constant croaking and squawking. In one case a Little Blue and and a Louisiana Heron held a brief combat, which appeared to be bloodless. But one pair of White Ibises were present when I arrived, and later four more came. A nest of the Ibis was found containing three eggs. None others seen on this visit. Twenty-six nests of Little Blue Herons counted in one clump of "Ty-Ty," which was about twenty-five feet in diameter and none of these over ten feet above the water. Several, eight or ten perhaps, immature Little Blues were flying about. One shot showed a crest and a line down the back and on wings, changing to smoky-gray. The bill of this bird, except about one-fourth its length at the tip, was an intense deep blue, legs sage green. It was a male and the sexual organs considerably enlarged, but I have no idea they breed in this plumage.

Several subsequent visits were made to this pond and the development of the young Herons was watched with interest. It was noted that when an adult came with food, if the young were still in the nest the old bird flew directly to the nest, but if the young were able to fly the adult circled and lit well up in a bush or small tree and a young bird immediately flew to the old one and was fed.

In the case of the colony of Louisiana Herons no other species associated, but with the Little Blues I found the Louisiana and Green Herons—only one pair of the latter—and the White Ibises.

It might be of interest to record that the Ibises did finally decide to build at this same pond. The nests, some thirty or more, were completed, being built largely of twigs plucked from the "Ty-Ty," with leaves attached and placed well up in the tops of the bushes. Fifteen or more contained eggs on June 1st, one to three eggs each, but on June 8th but one Ibis was found at the pond and every egg had been broken, the shells remaining for the most part in the nest.

BIRDS OBSERVED NEAR MINCO, CENTRAL OKLAHOMA.

BY ALEXANDER WETMORE.

(Continued from March, 1918, Wilson Bulletin.)

40. *Coturniculus savannarum bimaculatus* (Swainson).—Western Grasshopper Sparrow.

Common; breeding. Western Grasshopper Sparrows were characteristic birds of the high, rolling prairie where it was not under cultivation. On May 25 the condition of the sexual organs in birds collected indicated that the breeding season had just begun. Males sang from the weed-stems, the tops of the buffalo pea, or fence posts. The usual song may be represented by the syllables *Ka-tsick Katsee-e-e-e.* Another song was a succession of squeaky notes given rapidly. Female birds were little in evidence and were flushed with difficulty from their shelters in the grass.

Three females collected average smaller than the measurements given for this form by Mr. Ridgway.[1] The males have shorter tails than is usual. In coloration the birds collected are typical *C. s. bimaculatus.* Compared with a series of *C. s. australis* they have less black and more rusty brown in the upper parts. The bill also is more slender than in eastern Grasshopper Sparrows taken in Virginia. Measurements in millimeters of the specimens collected are as follows:

	wing	tail
No. 1140 (Coll. A. W.) Minco, Okla., May 25, 1905, ♀ ad.	61.0	42.9
No. 1142 (Coll. A. W.) Minco, Okla, May 25, 1905, ♀ ad.	60.0	44.0
No. 1198 (Coll. A. W.) Minco, Okla., May 31, 1905, ♀ ad.	61.7	42.0
Average of three adult females	60.9	42.9
No. 1143 (Coll. A. W.) Minco, Okla., May 25, 1905, ♂ ad.	63.0	44.6
No. 1152 (Coll. A. W.) Minco, Okla., May 26, 1905, ♂ ad.	63.5	45.0
No. 1196 (Coll. A. W.) Minco, Okla., May 31, 1905, ♂ ad.	65.0	44.5
Average of three adult males	63.8	44.7

41. *Chondestes grammacus strigatus* Swainson.—Western Lark Sparrow.

Common; breeding. These birds were scattered over the rolling prairie country and seemed at this time all to be nesting. An adult male, collected May 23, has the plumage of the upper parts somewhat worn. It differs from *C. g. grammacus* in all of the char-

[1] Birds of North and Middle America, I, 1901, p. 210.

acters separating *C. g. strigatus* from that form. Length of wing 87 mm., tail 67 mm.

42. *Cardinalis cardinalis* (Linnaeus).—Cardinal.

Common in thickets and small growths of timber along streams and in hollows on the prairie. A nest containing five fresh eggs was found along Boggy Creek on May 23. This nest was placed in a small elm sapling. It was made of leaves and grass and was lined with rootlets. No specimens of the cardinal found near Minco were collected so that the race to which these birds belong is in doubt. It seems probable that they will prove to be *Cardinalis c. cardinalis.*

43. *Guiraca caerulea lazula* (Lesson).—Western Blue Grosbeak.

Common. Though Blue Grosbeaks were found nearly always in pairs they did not seem to be nesting yet. The birds frequented heavy weed growths, and many were seen along the railroad track where telegraph wires offered convenient perches. The males were in full song. These grosbeaks were rather wild and were suspicious of any approach so that I had trouble in securing those desired as specimens. A male taken near Minco on May 26 is in full plumage. Another secured near Leal May 31 has the head and neck all around blue while elsewhere the body plumage is brown. Indistinct spots and marking of bluish are evident on the ventral surface and on the hind neck is an irregular patch of brownish. Measurements of these specimens follow:

	wing	tail
No. 1157 (Coll. A. W.) Minco, Okla., May 26, 1905, ♂ ad.	90.0	67.5
No. 1193 (Coll. A. W.) Leal, Okla., May 31, 1905, ♂ ad.	90.0	67.0
Average of two adult males	90.0	67.3

	wing	tail
No. 1124 (Coll. A. W.) Minco, Okla., May 23, 1905, ♀ ad.	81.5	62.0
No. 1134 (Coll. A. W.) Minco, Okla., May 24, 1905, ♀ ad.	84.5	68.0
No. 1158 (Coll. A. W.) Minco, Okla., May 26, 1905, ♀ ad.	83.0	62.0
No. 1194 (Coll. A. W.) Leal, Okla., May 31, 1905, ♀ ad.	86.5	67.5
Average of four adult females	83.9	64.9

Both male and female are decidedly paler than the corresponding sex in *G. c. caerulea.*

44. *Passerina cyanea* (Linnaeus).—Indigo Bunting.

A common breeding bird. An adult female in rather worn plumage was taken near Minco on May 23.

45. *Passerina ciris pallidior* Mearns.—Pale Painted Bunting.

Common; breeding. Nonpareils were fairly common in brushy

areas, and while not wild, kept well concealed when followed. Males sang their pleasing songs constantly. The only specimen secured was an adult female in peculiar plumage shot May 25. This, at first glance, might pass for an immature male. It has a reddish wash over the under surface (varying from flesh color to salmon color) with a very faint rosy wash on the back and rump that renders comparison with other specimens somewhat difficult. This bird measures as follows (in millimeters): wing 68.0, tail 53.0.

Four females of *P. c. ciris* from South Carolina, Georgia, Florida, and Louisiana give the following measurements: wing 64-66 mm. (average 65.1 mm.), tail 50-54 mm. (average 52.0 mm.). Four females of *P. c. pallidior* from southern Texas have a wing measurement of 66-68 mm. (average 67.2 mm.), and a tail measurement varying from 51 to 54 mm. (average 52.2 mm.). The bird from Minco equals *C. p. pallidior* in measurements, and in addition agrees with birds from Fort Clark, Texas (the type locality of *pallidior*) in having the green of the crown grayer than in true *ciris*. This gray tone is less evident on the back because of the reddish wash present in this specimen.

46. *Spiza americana* (Gmelin).—Dickcissel.

Dickcissels, known locally as "field canaries" or "wheat birds," bred abundantly around Minco. Brush or weed grown tracts were favorite haunts, but the birds spread in great numbers everywhere through cultivated fields and along fences. The males sang their odd, emphatic songs all day long perched on a weed, post or some other point of vantage. Occasionally a bird sang while on the wing. A nest was found in a clump of buck brush near the South Canadian River, built in a fork one and one-half feet from the ground. The nest was made of grass and weed-stems and lined with fine grasses. It was thick walled, bulky and strongly built. One egg had been deposited.

A male Dicksissel, collected May 24, is in full plumage with a black shield on the throat, and a small black spot in the center of the breast below. Another, collected on May 23, was shot for a female, but on dissection proved to be a breeding male. In color and marking it is very similar to females. The throat patch is even more restricted than in many females, and the feathers of the pileum are heavily streaked. On the underparts the yellow is of greater extent, and the black submalar streak found in females is barely indicated. A breeding female was collected on May 25.

47. *Piranga rubra rubra* (Linnaeus).—Summer Tanager.

The Summer Tanager was fairly common and was apparently

on its breeding grounds. Two were seen near Minco May 26 and an adult male was taken near Leal on May 31. This bird is in full plumage save for a crescent of carrot red on the upper breast. The wing of this specimen (No. 1182, Coll. A. W.) measures 93.0 mm., the tail 72.0 mm.

48. *Progne subis subis* (Linnaeus).—Purple Martin.

Two or three pairs of Purple Martins were nesting in bird houses in Minco. They were seen May 23 and daily thereafter.

49. *Hirundo erythrogastra* (Boddaert).—Barn Swallow.

One individual was seen near Minco May 29.

50. *Stelgidopteryx serripennis* (Audubon).—Rough-winged Swallow.

Two were seen at a nesting hole in a railroad cut near Minco on May 28. Others were observed near Leal on May 31.

51. *Lanius ludovicianus excubitorides* Swainson.—White-rumped Shrike.

White-rumped Shrikes were rare in this region at this time. One was seen on May 24, another on May 26, and single birds were observed later. As no specimens were secured these birds are referred arbitrarily to *L. l. excubitorides*.

52. *Vireosylva gilva gilva* (Vieillot).—Warbling Vireo.

Warbling Vireos were seen on May 26 and May 29. None were taken. I thought that they were breeding.

53. *Vireo belli belli* Audubon.—Bell's Vireo.

Common; breeding. Bell's Vireos were found everywhere in thickets and many came into the yards of Minco. Plum thickets on the upland prairies furnished dense cover for them, and in these places it was almost impossible to get sight of the birds. In town I heard their harsh emphatic songs constantly during the many hours passed in preparing specimens. All attempts at transcribing the song on paper were failures and it is necessary to hear the notes at first hand in order to appreciate them. Though harsh the song was not unpleasing and its oddity in inflection and phrase did not become monotonous, though repetition was incessant. One nest found was swung from a crotch in an apple tree four feet from the ground. It was made of strippings from weathered weeds, bits of paper and cotton and was lined with fine grass and horsehair. It was small in diameter and rather deep. On May 31 this nest contained three eggs of the Vireo and one of a Cowbird, all fresh. On May 26 another nest made of fine grass and weeds and lined with fine grass was found in a plum thicket near the South Canadian River. This nest hung from a crotch one and one-half feet from the ground. Externally it was covered with cobwebs. It contained three Vireo's eggs and one of a Cowbird. All were fresh.

Another nest found the same day in a similar situation was not yet completed.

One specimen was collected, an adult male, taken May 26. This bird has the back very slightly grayer than in typical *V. b. belli* from eastern Kansas, the rump being decidedly brighter than the back. In this and in length of tail (which measures 46.5 mm.) this bird verges somewhat toward *V. b. medius* of southwestern Texas. In other respects it agrees with true *belli* and there is no hesitancy in allotting it to this form.

54. *Oporornis formosus* (Wilson).—Kentucky Warbler.

Kentucky Warblers were fairly common in dense thickets. Birds were seen on May 24 and 26. None were taken.

55. *Geothlypis trichas brachidactyla* (Swainson).—Northern Yellow-throat.

A tolerably common species. Individuals were seen on May 23 and 27 near Minco, and a breeding female was taken on Bacon's Ranch near Leal on May 31. This specimen (No. 1192, Coll. A. W.) measures as follows: Wing 54.0 mm., tail 45.0 mm., exposed culmen 10.1 mm., and tarsus 20.2 mm. The wing and tail measurements, though large, are within the maxima for this form. Compared with *G. t. occidentalis* this specimen is distinctly darker above.

56. *Icteria virens virens* (Linnaeus).—Yellow-breasted Chat.

Common; breeding. Chats frequented the thickets everywhere and from May 25 to 30 the males, under the excitement of the breeding period, were in sight more often than is usual. Twice birds were seen in open bushes singing loudly and posturing in an odd manner. They swung first to one side and then to the other, turning each time until the head and body hung down, a performance that could not fail to attract attention. Another flew up a few feet above a thicket and sang in the air, supporting himself with rapidly beating wings, while feet and tail hung loosely and the bird swung jerkily from side to side. Two males, collected on May 25, resemble typical *virens* in size and in the extent of the malar stripe, but are very slightly grayer above. These two measure as follows (in millimeters):

	Wing	tail	Exposed culmen
No. 1144 (Coll. A. W.) ♂ ad., May 25, 1905.....	77.0	74.0	14.8
No. 1150 (Coll. A. W.) ♂ ad., May 25, 1905.....	78.0	77.0	14.0

57. *Mimus polyglottos leucopterus* (Vigors).—Western Mockingbird.

Common; breeding. Western Mockingbirds nested in the yards in Minco and were distributed in suitable localities through the

country. I found them quite common in the thickets near the South Canadian River. An adult male, taken May 26, is typical of *M. p. leucopterus* in size and color. It measures as follows (in millimeters):

	wing	tail	exposed culmen	tarsus
No. 1159 (Coll. A. W.) ♂ ad., May 26, 1905	112.8	120.0	17.0	34.0

58. *Thryomanes bewicki cryptus* Oberholser.—Texas Wren.

An adult male, in breeding condition, was taken on Bacon's Ranch, near Leal, on May 31. Compared with *T. b. bewicki* this bird is much grayer above and whiter below, while the black bars in the under tail coverts are decidedly narrower. It agrees with a series of *T. b. cryptus* from Texas in color and in size save that the tail is shorter than the wing instead of equal to it or longer. The bird is in worn plumage. It measures as follows: Wing 58.4 mm., tail 56.5 mm.

MINUTES OF THE NINETEENTH ANNUAL MEETING OF THE NEBRASKA ORNITHOLOGISTS' UNION.

The nineteenth annual meeting of the Nebraska Ornithologists' Union was held at Omaha, Nebraska, Friday and Saturday, May 10 and 11, 1918. The sessions were held in the Assembly Room of the First Unitarian Church, at Turner Boulevard and Harney Street. The annual banquet, this year of the conservation type, took place in this room conjointly with the annual dinner of the Nebraska Audubon Society at 6:30 on the evening of May 10. Eighty-five members of the two societies of bird lovers were present.

Following the dinner at 7:45 p. m. the members of the N. O. U. retired to the Auditorium for a short business session, with President C. E. Mickel in the chair. The reports of the officers were received, and an Auditing Committee and a Nominating Committee were appointed, the former committee consisting of Mr. Wilson Tout and Misses McDonald and Pyrtle, and the latter committee consisting of Professor R. W. Dawson, Mrs. L. R. Button and Miss VanSant. While these committees were deliberating the society proceeded with the election of new members.

The names of eight persons were proposed for membership in the society and all were elected, as follows: Mr. Cyrus Black of Kearney, Mr. A. M. Brooking of Inland, Mrs. A. J. Cornish of Lincoln, Miss Blanche Garten of Lincoln, Mrs. H. Hapeman of Minden, Mr. Paul Hoagland of Omaha, Mr. W. G. Landers of Norfolk, and Mrs. Anna Witt of Scribner.

The Auditing Committee then reported that the accounts of the Treasurer had been found to be correct, and upon motion this report was accepted by the society. The report of the Nominating Committee was then presented, and the following officers were elected for 1918:

President—Mr. A. M. Brooking, Inland.

Vice-President—Miss Jeanette McDonald, Omaha.

Secretary-Treasurer—Professor M. H. Swenk, Lincoln.

Fifteen members were present at this session of the N. O. U., as follows: Mesdames W. F. Baxter, L. R. Button, Mary Ellsworth, Alice E. Hitte, G. A. Loveland, C. W. McCaskill, Jeannette McDonald, E. Ruth Pyrtle, Elizabeth Rooney and Elizabeth VanSant, and Messrs. R. W. Dawson, W. G. Landers, C. E. Mickel, M. H. Swenk, and Wilson Tout.

On motion the Secretary-Treasurer was authorized by the society to invest two hundred dollars of its funds in Liberty Bonds, and to apply any balance remaining toward the support of the Wilson Bulletin during 1918.

The business meeting then adjourned, the members returning to the Assembly Room, where the public lecture of the evening was given at 8:15 by the retiring President, Professor C. E. Mickel, on the subject, "The Warblers of Nebraska." This lecture was illustrated by a series of over forty beautifully colored slides, especially prepared for this occasion, including every species of the family *Mniotiltidae* which has an established place on the Nebraska list. The speaker described the identification marks and general habits of the various species, and was assisted by Mrs. L. R. Button of Fremont, who gave descriptions and illustrations of the songs of the species known to her. The Assembly Room was filled at this lecture, which was intended to be a preparation for the warbler search of the following day. Professor M. H. Swenk introduced the speaker and presided over the discussion which followed.

The plans for the field day on Saturday were announced, and the meeting adjourned at 9:45 p. m.

On Saturday, May 11, the sixteenth annual field day of the Union was held. This day was this year made a "Warbler Day," since the date about coincided with the height of the warbler migration at Omaha and the region covered in this field trip was one of the very best in the state for finding these handsome and interesting birds. There were two principal parties, one leaving South Omaha at 7:00 and the other at 8:00 a. m., both entering Fontenelle Forest at Childs' Crossing after subdividing into smaller parties of ten to fifteen each. Over one hundred persons participated in the field day, the various parties meeting at noon for a picnic dinner at

"Coffin Spring," after which the return was made. The total list of the day included eighty birds, as follows:

Bluebird, Robin, Olive-backed Thrush, Gray-cheeked Thrush, Wood Thrush, Blue-gray Gnatcatcher, Ruby-crowned Kinglet, Long-tailed Chickadee, White-breasted Nuthatch, Western House Wren, Carolina Wren, Brown Thrasher, Catbird, Redstart, Yellow-breasted Chat, Maryland Yellow-throat, Louisiana Water-thrush, Grinnell Water-thrush, Ovenbird, Black-poll Warbler, Cerulean Warbler, Myrtle Warbler, Palm Warbler, Yellow Warbler, Tennessee Warbler, Orange-crowned Warbler, Golden-winged Warbler, Prothonotary Warbler, Black and White Warbler, Bell's Vireo, White-eyed Vireo, Yellow-throated Vireo, Warbling Vireo, Red-eyed Vireo, Tree Swallow, Rough-winged Swallow, Barn Swallow, Scarlet Tanager, Summer Tanager, Dickcissel, Indigo Bunting, Rose-breasted Grosbeak, Cardinal, Towhee, Lincoln's Sparrow, Song Sparrow, Field Sparrow, Clay-colored Sparrow, Chipping Sparrow, White-throated Sparrow, Harris' Sparrow, Lark Sparrow, Goldfinch, Bronzed Grackle, Rusty Blackbird, Baltimore Oriole, Orchard Oriole, Western Meadowlark, Red-winged Blackbird, Cowbird, Crow, Blue Jay, Traill's Flycatcher, Acadian Flycatcher, Phoebe, Crested Flycatcher, Arkansas Kingbird, Kingbird, Ruby-throated Hummingbird, Yellow-shafted Flicker, Red-headed Woodpecker, Northern Downy Woodpecker, Belted Kingfisher, Yellow-billed Cuckoo, Sparrow Hawk, Broad-winged Hawk, Western Mourning Dove, Killdeer, Great Blue Heron, Blue-winged Teal.

The occurrence of the Summer Tanager, of which there are very few records for the state, and of the Carolina Wren, at least two pairs in full song, were especially noteworthy results of this field day.

REPORT OF TREASURER, 1917-1918.

Receipts.

Cash on hand, May 4, 1917	$205.99
Annual dues collected	74.99
	$279.99

Expenditures.

Wilson Bulletin	$ 58.50
Postage	4.00
Express and exchange	.43
Balance on hand, May 10, 1918	217.06
	$279.99

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